

transducers 12, 14 is correlated to the scanning position in the bone by a control computer 22. The computer 22 correlates the control (timing) signals sent to the stepper motor which is in turn correlated to a position on the bone specimen (x, y, z).

NM
3/15/10
Amend the ^{first}~~second~~ full paragraph on page 27 as follows.

At step 408, three values may be generated by computer 22 using the emitted and received ultrasonic wave at each scan point (x, y, z) of the bone sample: a broadband ultrasonic attenuation (BUA) value, an ultrasound attenuation number (ATT) value, and an ultrasound velocity (UV) value. The BUA and ATT values represent two different forms of ultrasound attenuation (UA). BUA represents the slope of attenuation as a function of frequency. The ultrasound velocity (UV) image represents the ultrasonic velocity through the bone specimen. Ultrasound attenuation number (ATT) image represents the energy decay attenuation as a function of material density. Generation of BUA, ATT and UV by computer 22 from the various scan data acquired and stored in memory ~~22-27~~27 is further described below.